

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006464**Date Inspected:** 22-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 645**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Fabrication**Summary of Items Observed:**

CWI Inspector: Mr. Peng Guo

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Prior to Caltrans QA Inspectors' concurring with issuance of OBG deck plate closed rib green tag releases a review of the ultrasonic inspection database is performed to verify all closed rib tack weld repair locations have been ultrasonically accepted. Today this QA Inspector, Mr. Paul Dawson, performed data entry of ultrasonic inspection information from the field generated Ultrasonic inspection data sheets onto the common drive computer database for the following OBG deck panels: DP445-001, DP120-002, DP389-001, DP175-001, DP503-001, DP313-001, DP282-001, DP499-001, DP335-001, DP308-001, DP538-001, DP121-001, DP472-001 and DP094-001.

Tower Bay 11

ZPMC had presented Caltrans QA with "Inspection Notification Document" #02711 which states the following welds are ready for final visual inspection inside of east tower shaft lift 1.

The QA Inspector performed final random visual inspection of Double Diaphragm web to skin "E" welds at elevation 18m, weld ESD1-A167G/H-125; 23m, weld ESD1-A167G/H-42; 28m, weld ESD1-A167G/H-114; 33m,

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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weld ESD1-A167G/H-113; 38m, weld ESD1-A167G/H-111; 43m, weld ESD1-A167G/H-110 and 47.6m, weld ESD1-A167G/H-125. The QA Inspector observed welds at elevation 18m, 23m, 28m and 43m are visually rejected due to base material gouging and ZPMC QC representative Mr. Ma Qian Li concurred that these welds require rework. The welds at elevations 38m and 47.6m appear to comply with project specifications.

### OBG Bay 3

This QA Inspector performed random ultrasonic inspections of OBG Floor Beam welds FB016-032-043, FB015-032-045, FB012-022-045, FB020-008-108, FB024-011-108, FB023-011-108, FB027-012-108, FB028-011-108, FB028-012-108, FB003-137-108, FB003-133-104, FB003-133-105, FB003-146-104 and FB003-139-105. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on these inspections see the TL6027 Ultrasonic Test Report. ZPMC ultrasonic Inspectors have ultrasonically rejected welds FB010-029-043, FB003-154-105 and FB003-139-105. See the photograph below for additional information.



### Summary of Conversations:

See above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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